

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1-24. (Cancelled).

25. (Currently Amended) A method for attaching an aluminum weld stud to a substrate, the stud comprising a shank and a head extending along one end of the shank, the method comprising arc welding the head of the stud to the substrate, wherein the stud head comprises aluminum or an aluminum alloy and has a separate layer of a titanium containing material different from the stud head formed on at least a portion of a surface of the head.

26. (Previously Presented) A method according to claim 25, wherein the titanium containing material is applied to the surface of the stud head by immersing in an acidic solution comprising titanium ions.

27. (Previously Presented) A method according to claim 26, wherein the acidic solution is chromium free.

28. (Previously Presented) A method according to claim 26, wherein the acidic solution has a free acid content of between 6.1 and 18.3.

29. (Previously Presented) A method according to claim 25, wherein the substrate comprises a sheet material.

30. (Previously Presented) A method according to claim 29, wherein the sheet material comprises aluminum or an aluminum alloy.

31. (Previously Presented) A method according to claim 29, wherein the sheet material comprises an auto body panel for a motor vehicle.

32. (Currently Amended) A method for welding an aluminum weld stud to an auto body panel made of aluminum comprising;
 providing at least the surface of the stud to be welded with a separate layer of a titanium containing material different from the stud surface, and
 arc welding the stud to the panel.

33. (Previously Presented) A method according to claim 32, wherein providing at least the surface of the stud with a titanium containing metal comprises coating the surface in an acidic solution containing titanium ions.

34. (Previously Presented) A method according to claim 33, wherein the solution has a free acid content to between 6.1 and 18.3.

35. (Previously Presented) A method according to claim 33, comprising dipping the surface in the solution for 30 to 90 seconds.

36. (Previously Presented) A method according to claim 34, wherein the acidic solution is at about 45°C.

37. (Previously Presented) A method according to claim 33, wherein the acid solution is chromium free.

38. (Previously Presented) A method according to claim 33, wherein the acidic solution comprises ALODINE® 2040.

39. (Previously Presented) A method according to claim 32, wherein the layer is of sufficient thickness to prevent the formation of aluminum oxide.